



# Programmatic Overview

## NATIONAL CHARACTERIZATION MANAGEMENT PROGRAM (CMP)

The National Characterization Management Program's objectives are to assure the Office of Environmental Management (DOE/EM) of credible, cost-effective data for environmental decision making and compliance. The program develops guidance and process and planning tools to assist the Field Offices in more efficient planning, execution and evaluation, optimizing the quality and cost of EM characterization and monitoring activities and providing a desired control over quality, reliability and regulatory compliance.

### Descriptions

- EML Quality Assessment Program is an external, independent performance evaluation program designed to test the quality of environmental radiological measurements reported by DOE contractor and subcontractor laboratories. The program provides EM with complex-wide comparability of environmental radiological analysis for characterization, site survey and monitoring activities. EML's QAP provides an integrated approach to analytical QA. Technical assistance followup is provided to QAP participants with deficiencies.
- The Gamma Spectrometry Evaluation Program was initiated to provide the CMP with an assessment of the capabilities of DOE laboratories and contractors to perform routine gamma-ray spectra analysis required by site characterization.
- The QAP Services also provide additional quality control materials for corrective actions, methods evaluation and batch control as requested by the participating laboratories. Site-specific materials are developed in collaboration with the facilities.
- EML promotes the acceptance by regulators and the analytical community of modifications in analytical requirements, *in-situ* and field measurements and advances in project planning through participation in standards organizations and interagency workgroups.

### Points of Contact

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### Accomplishments

- The Semi-Annual Report for the 46th distribution of the EML Quality Assessment Program was published as U.S. DOE Report EML-591 in July 1997. This report presents an evaluation of 3658 reported analyses by 140 laboratories. Analyses were tested in four matrices: air filters, water, soil and vegetation.
- The first evaluation report of the Gamma Spectrometry Evaluation Program was published November 1996 as US DOE Report EML-582. The report evaluates data supplied by 31 laboratories utilizing 16 software programs.
- EML, representing DOE/EM, is actively involved in the Multi-Agency Radiation Laboratory Analytical Procedures (MARLAP) Manual Work Group. MARLAP is developing guidance to promote the generation of consistent and comparable laboratory data in support of assessment and cleanup of contaminated sites.
- EML participates as a Representative (voting member) to the National Environmental Laboratory Accreditation Conference (NELAC).
- EML is a member of the DOE Work Group developing guidance on radiological data validation procedures.
- EML was represented on the report committee for ICRU-53 publication, "Gamma-Ray Spectrometry in the Environment."
- EML is active in the standard setting activities of ASTM Committee D19.04 on Radiochemical Methods of Analyses for Water and Water Deposits and ANSI Committee 42.2 on Low-Level Environmental Measurement Quality Assessment.
- A summary paper on uncertainty in radiochemical analysis, "An Analysis of Combined Standard Uncertainty for Radiochemical Measurements of Environmental Samples" has been published in Radioactivity and Radiochemistry.

